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PHYSICIANS' STATED PREFERENCES OVER BENEFITS AND RISKS ASSOCIATED WITH NSAID USE IN PATIENTS WITH OSTEOARTHRITIS IN UNITED KINGDOM

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BACKGROUND: Treatments for symptom control in osteoarthritis (OA) confer varying degrees of benefits alongside medication-related risks. Physicians' preferences over benefits and risks of NSAIDS are an important aspect of understanding clinical practice. **OBJECTIVES:** To estimate physicians' preferences over benefits and risks associated with NSAID use in the management of OA and examine differences in preferences between general practitioners (GPs) and specialists. **METHODS:** Participating physicians treated at least 10 OA patients per-month. Each physician was randomized to receive one of four blocks of discrete-choice questions; each block consisting of 12 paired choice tasks comparing treatment profiles. Treatment profiles were defined by four benefits (ambulatory pain, resting pain, stiffness, difficulty doing daily activities) and four medication-related risks (bleeding ulcer, stroke, heart attack, hypertension), each varying across four clinically meaningful levels. Elicitation of preferences was facilitated using standardized patient profiles systematically varying by age, co-morbid conditions and clinically relevant risks of NSAIDs. Preference weights were estimated using mixed-effects logistic regression and were standardized on a 0–10 (low-high) importance scale. **RESULTS:** 477 physicians participated (61% GPs, 39% specialists). Reductions in ambulatory pain and difficulty doing daily activities were the most important efficacy variables (6.45; 95%CI:4.8–8.2) followed by eliminating resting pain (3.18; 95%CI:1.9–4.5) and stiffness (2.79; 95%CI:1.5–4.1). Ambulatory pain was twice as important as resting pain or stiffness ($P < 0.05$). Risk of heart attack was the most important medication-related risk outcome (10.00; 95%CI:7.6–12.4) followed by stroke (9.42; 95%CI:7.2–11.6), ulcer risk (4.62; 95%CI:3.5–5.7) and hypertension (3.25; 95%CI:3.2–3.4). There were no statistically significant differences in preferences between GPs and specialists. **CONCLUSIONS:** Ambulatory pain and the incremental risk of heart attack were the most important NSAID-related attributes that influence physicians' treatment choices. Preferences did not vary between GPs and specialists. The findings confirm that benefit-risk tradeoffs are important aspects in treament selection for OA management.

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ECONOMY OF NSAIDS IN THE MANAGEMENT OF OSTEOARTHRITIS: SODIUM CHONDROITIN SULFATE VS. CONTROL GROUP

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OBJECTIVES: Describe the potential economy of NSAIDs in a population of patients with osteoarthritis newly-treated with a sodium chondroitin sulphate (SCS) versus a control group. **METHODS:** The Disease Analyzer database (IMS), which collects medical data from 1240 representative French GPs was used. The control group consists of patient diagnosed with knee or hip osteoarthritis during the observation period but not treated with symptomatic slow acting drugs for osteoarthritis throughout the study period, no during the year before the study or the following year. **RESULTS:** In total, 944 patients were included, 472 per group. The characteristics of both groups in terms of age, sex, time since diagnosis and type of osteoarthritis are strictly the same. 80% of patients included suffer from osteoarthritis of the knee. a total of 53.4% of patients included in study received one or more prescriptions for NSAIDs during the year prior to their inclusion. Half of the patients in the SCS group received at least one NSAID prescription during initiation or during the 1 year follow-up period. This % is significantly higher in the control group (64%; $P < 0.01$). 18% of patients in the SCS group stopped their treatment with NSAIDs at the initiation of SCS and did not resume it during the follow-up year, versus 11% in the control group. This difference is significant ($p = 0.01$). Patients in the SCS group require significantly fewer days of treatment with NSAIDs expressed in DDD than patients in the control group: on average 49 days of treatment versus 64 ($p = 0.01$). **CONCLUSIONS:** One of the public health goals set by health authorities—to reduce the incidence of iatrogenic complications (serious bleeding or gastroduodenal events) by 20% in osteoarthritic patients could be attained by a prescription of SCS. Indeed, this study highlights the fact that, in actual use, patients in the SCS group are significantly less likely to use NSAIDs (–22%).

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THE MANAGEMENT OF OSTEOARTHRITIS: ECONOMY OF NSAIDS

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OBJECTIVES: To describe the use NSAIDs in a population of patients with osteoarthritis newly-treated (2009) by a symptomatic slow acting drugs for Osteoarthritis (SYSADOA) **METHODS:** The Disease Analyzer database (IMS), which collects medical data from 1240 representative French GPs was used. Patients over 50 y of age were included over a period of one year where a diagnosis of osteoarthritis associated with the initiation of an SYSADOA prescription was identified in the DA database (patient had been monitored for at least 6 months). **RESULTS:** In total, 3141 patients were included in the study. The patient profile is similar regardless of the treatment group considered (68% female, average age of 66, 50% patients the diagnosis dates from less than 1 year). The use of NSAIDs at the outset does not significantly differ among the groups of patients (25%). About 30% of patients discontinue their NSAID therapy upon initiation of treatment with SYSADOA. This proportion did not vary significantly with the SYSADOA considered. More than 40% of patients discontinued treatment with NSAIDs during the 6-month follow-up period. 20% of patients who continued treatment with NSAIDs increased the dosage or duration of the NSAID therapy. About 45% of patients benefited from a co-prescription of analgesics during the initiation of treatment with SYSADOA. This rate did not significantly vary among groups of patients. 21% of patients discontinued their treatment with analgesics after initiation of treatment with SSAAO. This proportion did not vary significantly with the SYSADOA considered. **CONCLUSIONS:** It is generally accepted that an economy of 20% of NSAIDs has a major impact on public health. Regardless of the prescribed SYSADOA, NSAID interruptions at initiation are approximately 30%, and nearly two thirds of patients with co-prescriptions of NSAIDs at the start of treatment stop or reduce this treatment within 6 months. The cost of complications related to anti-inflammatory drugs would be around 150 million Euros.

MUSCULAR-SKELETAL DISORDERS – Conceptual Papers & Research on Methods

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INDIRECT TREATMENT COMPARISON TO COMPARE EFFICACY IN HEALTH ASSESSMENT QUESTIONNAIRE (HAQ) SCORE FOR BIOLOGIC AGENTS WITH METHOTREXATE IN PATIENTS WITH RHEUMATOID ARTHRITIS AND ACTIVE DISEASE DESPITE METHOTREXATE THERAPY

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OBJECTIVES: To compare the efficacy in terms of HAQ score between abatacept and other biologic Disease Modifying Anti-Rheumatic Drugs (DMARDs) in patients with rheumatoid arthritis taking concomitant methotrexate (MTX) who have inadequate response to MTX (MTX-IR). **METHODS:** A systematic literature review identified controlled trials investigating the efficacy of abatacept (3 studies), etanercept (2), infliximab (3), adalimumab (2), certolizumab pegol (2) ritixumab (2), and tocilizumab (1) in MTX-IR patients. The identified trials were comparable in design, included patients, and concomitant treatment (MTX). Mixed treatment comparison analyses were performed on HAQ change from baseline (CFB) at 24 and 52 weeks. Results were expressed as difference in HAQ CFB score between treatments and expected HAQ CFB and the 95% Credible Interval (CrI) per treatment at 24 and 52 weeks. **RESULTS:** The analysis of HAQ CFB at 24 weeks showed that abatacept/MTX is more efficacious than MTX monotherapy (–0.30, 95%CrI: –0.40; –0.19) and shows small numeric differences versus other biologics/MTX (range: –0.11:0.08). The expected mean HAQ CFB at 24 weeks for abatacept (–0.58) was superior to placebo (–0.28) and comparable to all the alternative treatments (adjusted mean between –0.47 and –0.66). The findings at 52 weeks are in line with those at 24-weeks, although no data was available for tocilizumab and golimumab. Scenario analyses confirmed the robustness of the findings. **CONCLUSIONS:** All biologic DMARDs in combination with MTX in the treatment of MTX-IR patients resulted in improvements from baseline in HAQ score compared to MTX monotherapy at 24 and 52 weeks. All biologic DMARDs in combination with MTX are expected to result in a comparable improvement in HAQ score.

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INTERACTIVE ELECTRONIC INTERFACES (IEI): BRIDGING THE COMMUNICATION GAP BY TRANSLATING ECONOMIC ANALYSIS RESULTS TO DECISION-MAKERS EVERYDAY PRACTICE

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OBJECTIVES: Interfaces are interactive dashboards built with programs like Visual Basic for Applications, Crystal Xcelsius or Java. We aimed to demonstrate how IEI allow the translation of pharmacoeconomic studies' results into understandable projections to decision makers. We present the economic evaluation of rivaroxaban in the prevention of thromboembolic events as a case study. **METHODS:** A model evaluating rivaroxaban in patients undergoing total knee and hip replacement was used. The model was adapted to different decision makers needs, namely Health Maintenance Organizations (HMO), hospitals, and physicians focused only on clinical outcomes. For each perspective, the following parameters could be customized: state taxes, time horizon of the analysis, choice of comparator (enoxaparin, dabigatran or both), duration of hospitalization, unit costs (drugs, treatment and diagnosis resources), eligible population and market share of comparators over the following five years. **RESULTS:** The IEI design for this case demonstrated that, under the perspective of an HMO with 200.000 lives, considering a base case where 80% of patients are treated with enoxaparin and 20% with dabigatran, and replacing every year 10% of enoxaparin cases with rivaroxaban would result in a budget impact of (-R$46,155) in 4 years for knee and hip replacement cases. The potential impact for cost offsets for the whole private system would be of (-R$8.3 million). Under the perspective of